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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,168	04/22/2004	Toshiharu Ueno	0879-0441PUS1	5767
2292 7590 04/04/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER PATEL, KAUSHIKKUMAR M	
			ART UNIT	PAPER NUMBER
			2188	
SHORTENED STATUTORY PERIOD OF RESPONSE		NOTIFICATION DATE	DELIVERY MODE	
3 MONTHS		04/04/2007	ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/04/2007.

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Office Action Summary

Application No.

10/829,168

Applicant(s)

UENO, TOSHIHARU

Examiner

Kaushikkumar Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 4/22/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on April 22, 2004 has considered to the extent understood by its English language abstract.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "each block containing the page" in line 4, it is unclear whether "the page" is part of all blocks or the blocks contains number of pages from a plurality of small pages, thus the language renders the claim indefinite. Also line 7 recites "allocating the specific area to the page or pages" is not clear, the meaning from the phrase is that the area is allocated to pages, instead the pages are allocated to pages.

Claim 1 recites the limitations "the page" and "the same block" in lines 3, 4, 7 and 8. There is insufficient antecedent basis for these limitations in the claim.

Claims 5-7 recite the limitations "the block being unused", "the block", "the data management area", "the modified data management area", "the block" and "the block unused" in lines 4, 5, 6, 8, 10 and 11 respectively. There is insufficient antecedent basis for these limitations in the claims.

Claims 5-7 recites method steps, as "upon recording of information...medium, allocating the block...the block;" and third step of "reading and modifying...medium". It seems that, first data is recorded and then the block is allocated to the logical space (or recorded data) and lastly the management information is read and modified. It is not clear how the information is recorded in the medium first, without reading the management information first?

Similarly, claims 8-10 recites steps of erasing information, then reading and modifying contents of data management area as well as last step of erasing the information to be deleted. It is unclear how the data is erased first then there is information to be deleted is left in the memory?

Claims 8-10 recites the limitations "the data management area", "the modified data management area", "the block being unused", "the block unused", "the information to be deleted" and "the information has resided" in lines 4, 6, 8, 9 and 10 respectively. There is insufficient antecedent basis for these limitations in the claims.

Claims 2-4 are also rejected due to their dependency on rejected claim.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiba (US 6,411,552) and further in view of Lakhani et al. (US 7,123,512).

As per claim 1, Chiba teaches a method of recording and reproducing information in which a recording area of a recording medium is physically divided into small pages and is also partitioned into physical blocks each having a plurality of pages so that information recorded in the page is erased in units of each block containing the page (fig. 1, item 1, fig. 2 shows recording medium is divided into blocks and blocks are further divided into pages, also col. 5, lines 50-60, col. 2, lines 27-30, data erasing is carried out in units of one block, col. 17, line 65 – col. 18, line 5), the method comprising step of:

upon allocation to the block a specific area where information is frequently changed, (col. 16, lines 37-47, blocks are allocated to FAT in which information changes frequently), allocating the specific area to the page or pages in the block (Chiba teaches allocating specific area to FAT and information written-in and erased as a unit of block, col. 2, lines 26-47, "the position information and identification name are stored in a single cluster or a single block, therefore the necessity of saving other data for updating these data is eliminated and thus the data write-in or erase processing can be carried

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out rapidly” and Chiba further teaches marking FAT area so other user data can not be written in area for management information, Chiba, col. 19, lines 48-60), thus Chiba teaches limitation of allocating the specific area of blocks and remaining portion (remaining pages) stays unused.

Chiba teaches allocating block as a unit and remaining unallocated portion stays unused and also teaches preventing user from accessing blocks allocated to FAT (management information) but fails to teach disabling of remaining unused area of block (remaining unused pages). Lakhani teaches method of disabling defective pages in the block (Lakhani, col. 12, lines 3-5). It would have been obvious to one having ordinary skill in the art at the time of the invention to utilize method of disabling pages of blocks as taught by Lakhani in the system of Chiba to prevent inadvertent access to the pages of blocks specifically allocated to management information by disabling unused (or defective) pages in the block (Lakhani, col. 12, lines 10-11).

As per claim 2, Chiba teaches the specific area is an area for management data (Chiba, col. 16, lines 37-46, col. 19, lines 47-61).

As per claim 5, Chiba teaches upon recording of information into the recording medium, allocating the block being unused to logical space and recording information into the block (Chiba, col. 14, line 44 – col. 15, line 24);

reading and modifying contents of the data management area in the recording medium; recording the modified data management area into another unused block in the recording medium (Chiba col. 15, lines 25-30, col. 13, line 60 – col. 14, lines 17); and erasing the data management area before modified, and turning the block where

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the data management area before modified has resided into the block unused (Chiba, col. 14, lines 24-42, where it is readily apparent that the erase block turned into unused block).

As per claim 8, Chiba teaches all the limitation as explained with respect writing data in recording medium as explained with respect to rejection of claim 3 above, Chiba teaches erasing the information from recording medium (Chiba, col. 13, line 45 – col. 14, line 42) satisfying all the limitations of claim 8.

7. Claims 3-4, 6-7 and 9-10 are rejected under **35 U.S.C. 103(a)** as being unpatentable over Chiba (US 6,411,552) and Lakhani et al. (US 7,123,512) as applied to claims 1 and 2 above, and further in view of Estakhri et al. (US 6,978,342).

With respect claims 3 and 4, Chiba and Lakhani teaches all the limitations of claims 1 and 2 and further teaches area for management information and user area (Chiba, figs. 16 and 17), but fails to teach pages provided with area for recording information indicating area allocated, area unused, area disabled as required by claims 3 and 4. Estakhri teaches various flags to mark pages as unused, used, defective etc. (Estakhri, fig. 11). It would have been obvious to one having ordinary skill in the art at the time of the invention to utilize flags as taught by Estakhri in the system of Chiba and Lakhani to improve performance by providing rapid access to stored data (Estakhri, col. 3, lines 44-55, col. 4, lines 5-30).

Claims 6-7 and 9-10 are also rejected under same rationales as applied to claims 5 and 8 above.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Maeda et al. (US 2004/0139310) teaches a method of allocating specified area to data management information for reliable reading and writing of recording medium.

Nakanishi (US 2003/0014582) teaches updating FAT (management information area) by writing updated FAT information page by page into new unused block thereby preventing an error in updating of FAT.

Yamazaki et al. (US 7,050,190) teaches recording data as per block-by-block basis to reduce erase before write cycle.

9. The examiner also requests, in response to this Office action, support be shown for language added to any original claims on amendment and any new claims. That is, indicate support for newly added claim language by specifically pointing to page(s) and line no(s) in the specification and/or drawing figure(s). This will assist the examiner in prosecuting the application.

10. When responding to this office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present, in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections See 37 CFR 1.111(c).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaushikkumar Patel whose telephone number is 571-272-5536. The examiner can normally be reached on 8.00 am - 4.30 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung Sough can be reached on 571-272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



kmp

Kaushikkumar Patel
Examiner
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SUPERVISORY PATENT EXAMINER
3-29-07